



LITTLE BROTHER MODEL 2950

NOTE: SEE EXPLORER MODEL 2900 SERVICE MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.

PARTS LIST

2951 BOARD

REFERENCE	ARP PART NUMBER	ARP/MFG NUMBER	DESCRIPTION
CR5-10	1200301	IN4148	DIODE, SIGNAL
Q1	1303001	2N3906	TRANSISTOR, PNP, GP
Z2	1601801	A2801-008/SL19988	IC, OP AMP, SELECTED
Q5	5600201	A2803-003-1	FET, N CHAN. SELECTED
R24	1000909	U201R103B	POT, TRIMMER, 10K
R31	1000921	U201R105B	POT, TRIMMER, 1M
R23	5701802	B2801-010-2	POT, ROTARY, 100K
R18,22	5700702	B2801-006-2	POT, SLIDE, 100K AUD
R27	5700701	B2801-006-1	POT, SLIDE, 1M AUD
C4,5	1100609	G-0-001-G-20-0	CAP. TANT. 1UF, 35V
S3	1902401	01-481-0006	SWITCH, SLIDE, DPDT
J6	2101302	16-511-10	SOCKET, DUAL IN LINE, 16 PIN

2952 BOARD

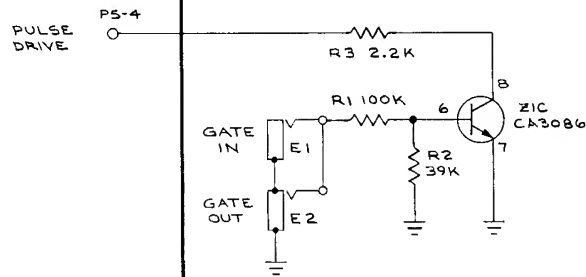
REFERENCE	ARP PART NUMBER	ARP/MFG NUMBER	DESCRIPTION
CR1-4	1200301	IN4148	DIODE, SIGNAL
Q1	1303001	2N3906	TRANSISTOR, PNP, GP
Z1	1400501	CA3086	I.C., TRANSISTOR ARRAY
Z2	5601801	A2801-008	IC, OP AMP, SELECTED
R13	1000915	U201R104B	POT, TRIMMER, 100K
C6,7,8	1100609	G-0-001-G-20-0	CAP. TANT, 1UF, 35V
C3,4	1100612	G-0-010-G-20-0	CAP. TANT, 10UF, 35V
E1-6	2101201	142A	JACKS, TINI-D

2953 BOARD

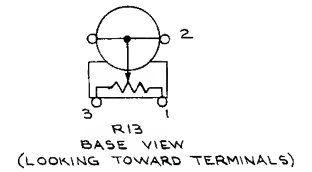
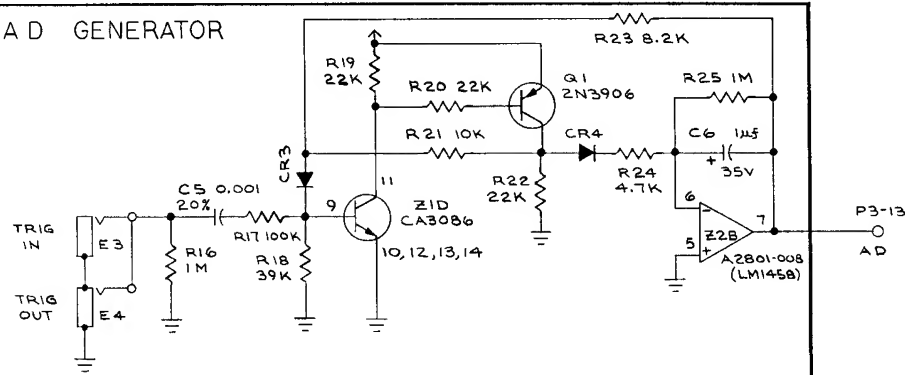
REFERENCE	ARP PART NUMBER	ARP/MFG NUMBER	DESCRIPTION
M1	4027-1	4027-1	VCO MODULE (OSCILLATOR)
CR1-4	1200301	IN4148	DIODE, SIGNAL
Q3,4	1302901	2N3904	TRANSISTOR, NPN, GP
Z1	1400901	CD4024AE	I.C. BINARY COUNTER, 7 BIT
Z2,3	5601801	A2801-008/SL19988	IC, OP AMP, SELECTED
Z5	5700601	B2900-001	IC, RESISTOR PACK
R43	5701803	B2801-010-3	POT, TRIMMER, 100K
R41,42	1000915	U201R104B	POT, TRIMMER, 100K
C9	1100609	G-0-001-G-20-0	CAP. TANT, 1UF, 35V
S1,6,7,8	1902701	02-481-0015	SWITCH, ROCKER, DPDT, IVORY
S2,3,4,5	1902702	02-481-0016	SWITCH, ROCKER, 4PDT, IVORY
FOR Z1	2101301	14-511-10	SOCKET, DUAL IN LINE, 14 PIN
J2	2101302	16-511-10	SOCKET, DUAL IN LINE, 16 PIN

ARP INSTRUMENTS, INC.
320 Needham Street
Newton, Mass. 02164
617 965-9700

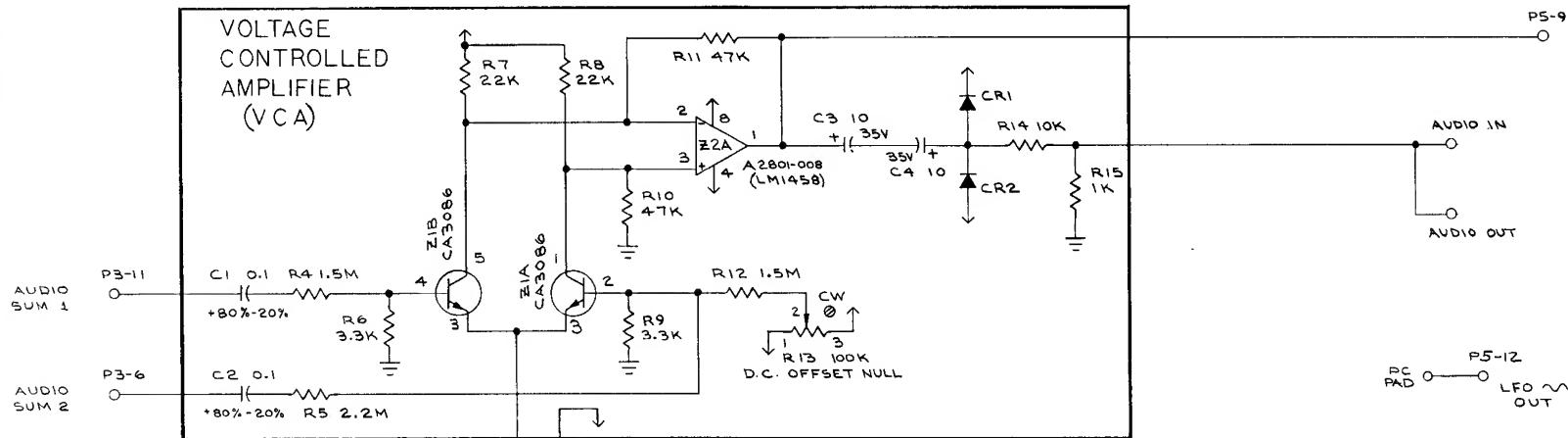
GATE CONDITIONER



A D GENERATOR

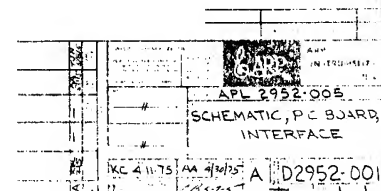
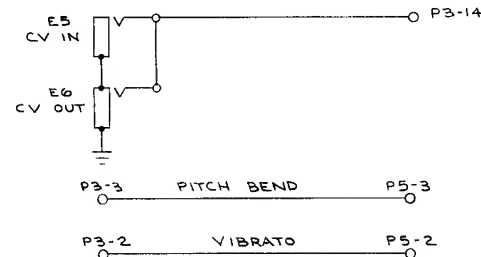
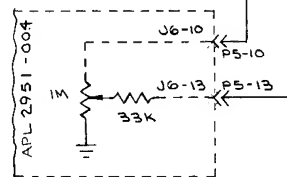
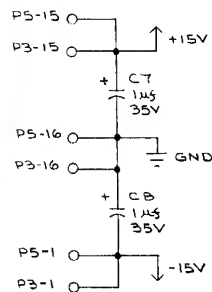
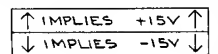


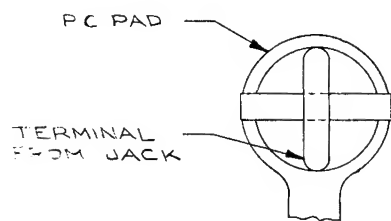
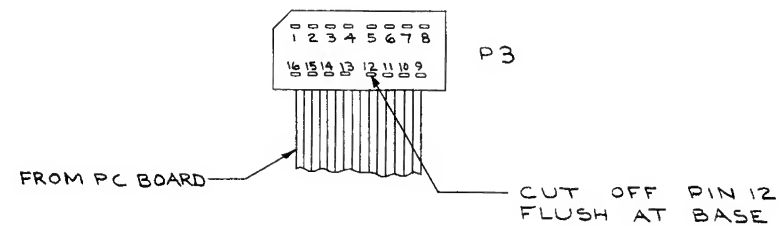
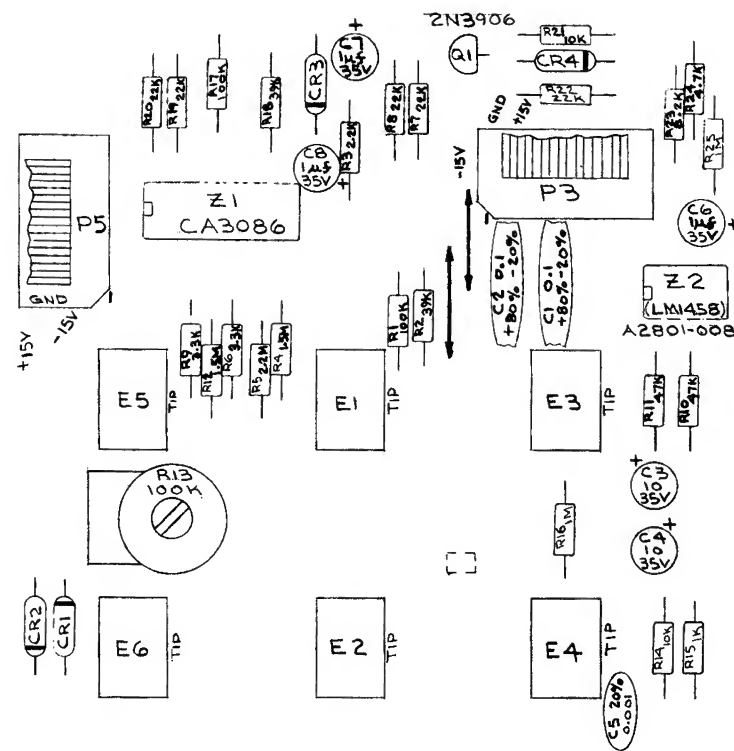
VOLTAGE CONTROLLED AMPLIFIER (VCA)



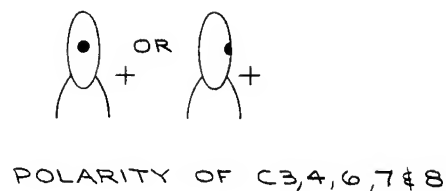
NOTES:

1. UNLESS OTHERWISE SPECIFIED:
ALL RESISTOR VALUES ARE IN OHMS
ALL CAPACITOR VALUES ARE IN μ F
(P = PICO FARADS)
ALL DIODES ARE 1N4148
2. PINS 10, 12, 13 & 14 OF Z1 ARE
TIED TOGETHER
3. HIGHEST REF. DES; C8, CR4, E6,
P5, Q1, R25, Z2
4. CONVENTION USED FOR
SUPPLY VOLTAGE CONNECTIONS.





TYPICAL WIRING FOR
TINI-D-JAX JACK TIPS
E1 THRU E6



POLARITY OF C3,4,6,7&8

APL 2952-005

PC BOARD ASSY,
INTERFACE

KC 4-875 AA 2/30/75 A C2952-004

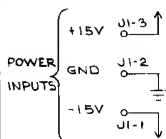
7. 6.75 2/15-2-5 2/1

KEYBOARD
CONT. VOLT.

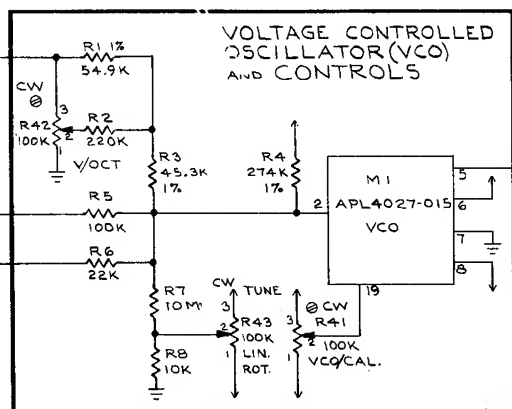
VIBRATO

PITCH BEND

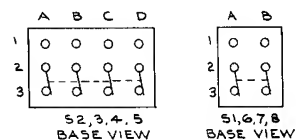
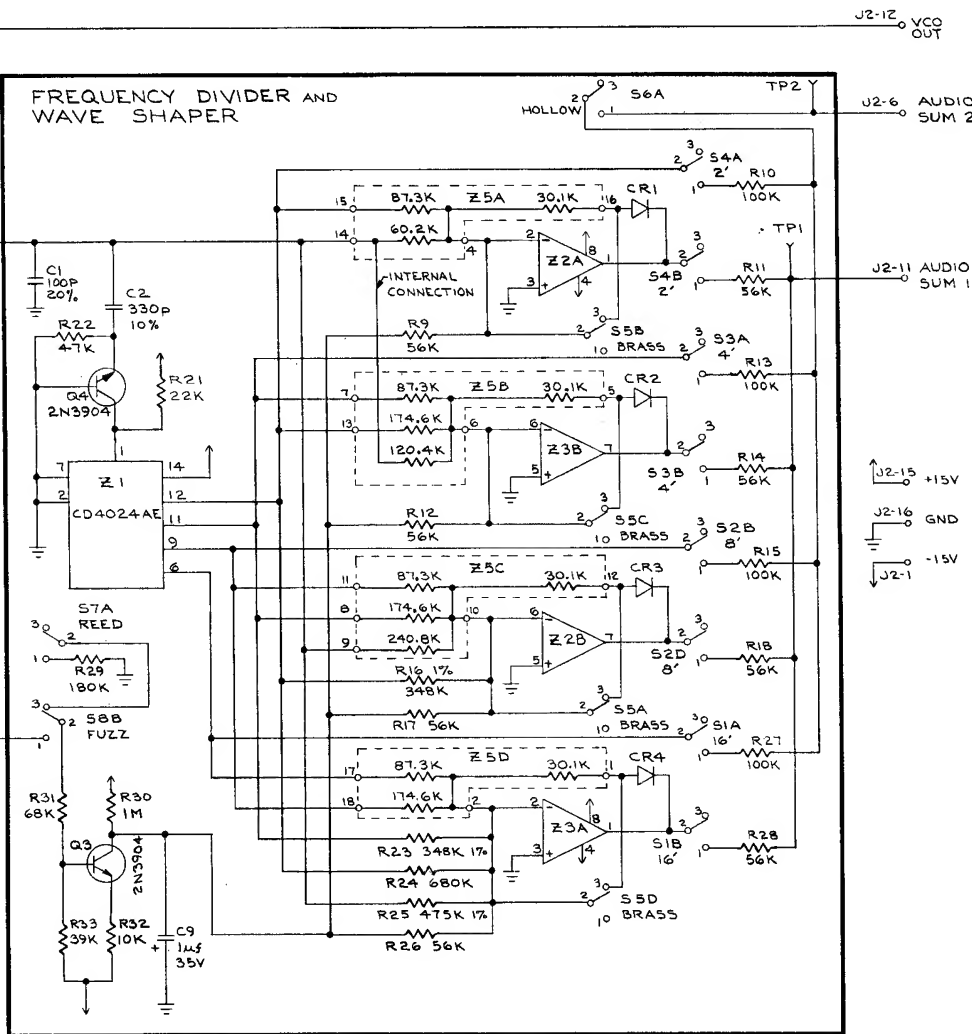
A D J2-13



VOLTAGE CONTROLLED OSCILLATOR (VCO) AND CONTROLS



FREQUENCY DIVIDER AND WAVE SHAPER



52, 3, 4, 5
BASE VIEW

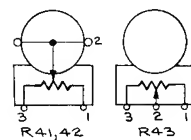
51, 6, 7, 8
BASE VIEW

1 LEVER IN OFF
POSITION

2 LEVER IN ON
POSITION

3

51 THRU 58
SIDE VIEW SHOWING LEVER
POSITION WHEN CONTACTS
ARE AS SHOWN IN BASE VIEWS



BASE VIEWS
(LOOKING TOWARD TERMINALS)

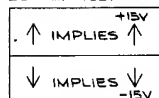
J2-15 +15V

J2-16 GND

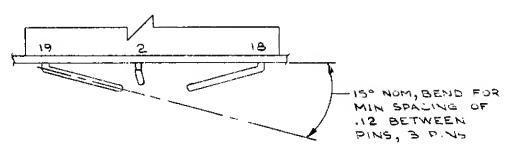
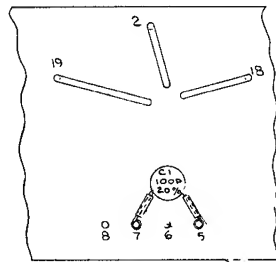
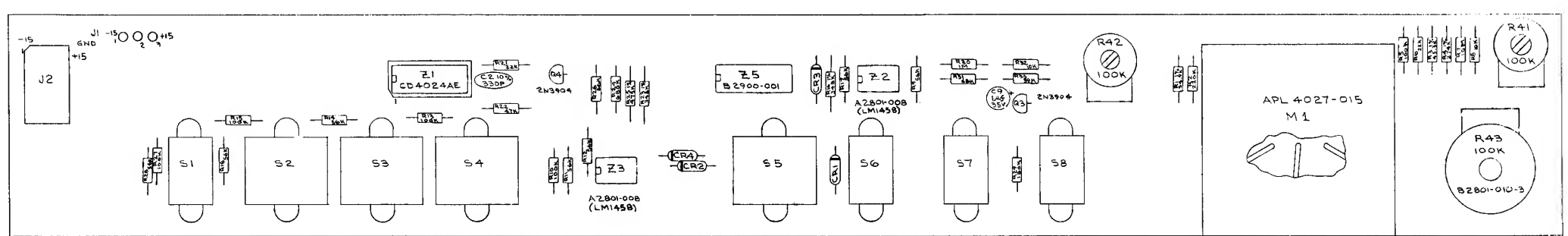
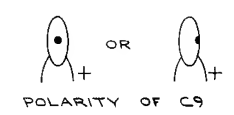
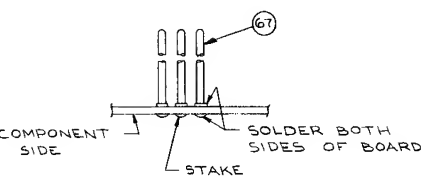
J2-1 -15V

NOTES:

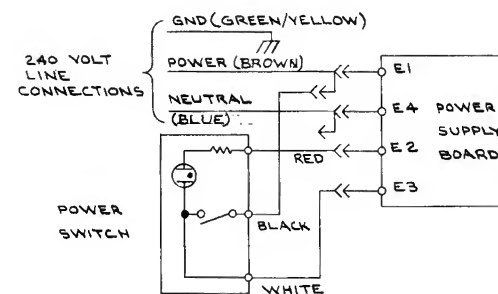
1. UNLESS OTHERWISE SPECIFIED:
ALL RESISTOR VALUES ARE
IN OHMS.
ALL CAPACITOR VALUES ARE
IN μ F (P=PICOFARADS).
ALL DIODES ARE IN 1A4B
2. Z24 Z3 ARE A2801-008 (LM1458)
Z5 IS B2900-001
3. PIN 3 OF Z5 IS NOT
CONNECTED INSIDE OF I.C.
4. HIGHEST REF. DES.
C9, CR4, J2, M1, Q4, R43,
S8, Z5
5. CONVENTION USED FOR
SUPPLY VOLTAGE CONNECTIONS



REV.	DATE	BY	CHKD.	APP.	TEST NUMBER	TEST DATE
1	10-1-75	ARP			ARP	
2	10-1-75	ARP			ARP	
3	10-1-75	ARP			ARP	
4	10-1-75	ARP			ARP	
5	10-1-75	ARP			ARP	
6	10-1-75	ARP			ARP	
7	10-1-75	ARP			ARP	
8	10-1-75	ARP			ARP	
9	10-1-75	ARP			ARP	
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99	10-1-75	ARP			ARP	
100	10-1-75	ARP			ARP	



APP INSTRUMENTS INC.	
APL 4027-015	
P.C. BOARD ASSY, WAVEFORM GENERATOR	
KC 4875 AA 51175	A 20053-01
12-5-75	12-5-75

[illegible]